Finding of No Significant Impact
PN-FONSI 03-05

**Programmatic Environmental Assessment
for Implementation of Action 149
Fish Habitat Improvement Measures from the
December 2000 National Marine Fisheries Service
Biological Opinion of the Federal Columbia River
Power System in Three John Day Subbasins in the Mid-Columbia
River Steelhead Evolutionarily Significant Unit in Central Oregon**

Introduction

The National Marine Fisheries Service (NMFS) issued a Biological Opinion (BiOp) in December 2000 on continued operation and configuration of the Federal Columbia River Power System (FCRPS). Unless actions identified in the Reasonable and Prudent Alternative (RPA) in the BiOp are taken, a jeopardy opinion under the Endangered Species Act (ESA) may be issued for continued operation of the FCRPS. As part of the RPA, NMFS identified the need to improve migration, spawning, and rearing habitat for listed anadromous fish stocks in priority subbasins as part of an off-site mitigation program. RPA Action 149 requires that Reclamation "shall initiate programs in three priority subbasins (identified in the Basin-wide Recovery Strategy) per year over 5 years, in coordination with NMFS, U.S. Fish and Wildlife Service (USFWS), the states, and others, to address all flow, passage, and screening problems in each subbasin over 10 years." (Note: Except for specific references to the 2000 FCRPS BiOp, the government agency formerly known as NMFS will be referred to as NOAA Fisheries in this document.)

The U.S. Bureau of Reclamation (Reclamation) developed a Programmatic Environmental Assessment (PEA) in order to implement its anadromous fisheries habitat improvement program within three John Day River subbasins. The intent is to tier additional National Environmental Policy Act (NEPA) analysis, as necessary, off the PEA document. The PEA analyzes the environmental impacts of implementing a 10-year program of improving streamflows and correcting fish passage and screening problems within the North Fork, Middle Fork, and Upper (main stem) subbasins of the John Day River, priority subbasins within the Mid-Columbia River Steelhead Evolutionarily Significant Unit.

The PEA was prepared pursuant to the National Environmental Policy Act of 1969. In addition to the action alternative, the PEA also evaluated a no-action alternative as required by NEPA. The proposed action is discussed and analyzed in general terms, as the PEA describes generic types of projects suitable for wide application throughout the project area and, therefore, does not include any site-specific data or analysis. However, the assessment and its analysis of environmental consequences are based

on numerous completed projects within the John Day priority subbasins and address the broad range of implementation measures proposed to comply with Action 149.

Alternatives Considered

No Action. The "no action" alternative is for Reclamation to contribute minimal assistance toward habitat improvement activities in the North Fork John Day, Middle Fork John Day, and Upper John Day subbasins. There might be Reclamation funding of planning efforts; however, these funds would be minimal and could not be used for on-the-ground project work (construction). Reclamation's Demonstration Project has been completed, and Reclamation does not have funding or authority to continue the Demonstration Project. The "no action" alternative acknowledges that improvements would still get accomplished in the subbasins, but with limited Reclamation funds and technical expertise.

Proposed Action. The proposed action is the implementation of Reclamation's responsibilities under Action 149 of the 2000 FCRPS BiOp in the North Fork John Day, Middle Fork John Day, and Upper John Day subbasins. Reclamation is specifically required to implement Action 149 in order to conserve listed species under the ESA.

Recommended Alternative

The proposed action is the implementation of Reclamation's responsibilities under Action 149 of the 2000 FCRPS BiOp in the North Fork John Day, Middle Fork John Day, and Upper John Day subbasins. Toward this end, Reclamation would provide technical expertise, and construct or provide construction funding, to accelerate improvements in fish habitat. This effort and funding would be directed to improve fish habitat, which in turn should improve fish populations, by using established, accepted methods for removing fish passage barriers, augmenting streamflows, and providing or updating fish screens. All activities would abide by applicable permit requirements and state water law.

The proposed action would improve flows, eliminate in-stream passage barriers, and correct fish screen deficiencies on private lands that are related to irrigation. Reclamation's involvement in these actions would occur through December 2010 in the Upper John Day and Middle Fork John Day subbasins, and through December 2012 in the North Fork John Day Subbasin. Reclamation would not maintain further commitments related to the FCRPS BiOp after this point. Consequently, project operation and maintenance (O&M) would be the responsibility of the landowner. Long-term O&M oversight, if appropriate, would become the responsibility of a third party (such as a watermaster or state agency).

The following is a list of potential measures that Reclamation would contribute to or implement. Depending on the subbasin-specific conditions, not all measures would

apply to all subbasins. Discretion would be used in determining which measures are appropriate in meeting the particular passage, flow, and screen deficiencies for each situation.

Goals	Potential Measures
Correct passage barriers	Remove pushup dams and replace with pump systems, infiltration galleries, or other permanent structures, such as lay-flat stanchion dams, with viable fish passage facilities. Consolidate diversions.
Correct streamflow deficiencies	Acquire water for in-stream flow during critical migration periods. Replace headgates to provide better control of water withdrawals, and install measuring devices.
Correct screen deficiencies	Utilize rotary drum, flat plate, or traveling belt screens that meet NOAA Fisheries criteria. Utilize NOAA Fisheries-approved exposed or buried well screens on pump intakes. Utilize screen methods to protect fish from wasteway attraction flows. Utilize siphons at stream/irrigation ditch interfaces.

Environmental Commitments

Because the specific choice of locations and the number of willing participants is not known, nor can the choice of specific measures be determined at this time, this Environmental Assessment is prepared at a programmatic level. When specific locations for projects have been determined, Reclamation would fulfill compliance requirements for each individual site-specific project. As examples of these additional, site-specific requirements, Reclamation would:

- Inspect project sites for the presence of listed or proposed threatened or endangered species.
- Complete ESA consultation with NOAA Fisheries and USFWS before initiating any action that would result in irretrievable and irreversible commitment of resources. This includes consultation at both a programmatic level and for site-specific projects.
- Design all fish screens, fishways, and other fish passage-related structures to meet NOAA Fisheries criteria.
- Conduct cultural resource surveys to determine the presence of resources eligible for listing on the National Register of Historic Places in locations that may be affected by construction or operation of the proposed modifications.

- Consult with tribes to determine if Indian sacred sites are present and seek to avoid damage to those that are present.
- Secure through the Oregon Division of State Lands and the U.S. Army Corps of Engineers any necessary permits under Section 404 of the Clean Water Act.
- Conduct in-stream activities within Oregon Department of Fish and Wildlife guidelines for timing of in-water work.
- Adhere to all requirements of the Oregon Water Resources Department regarding the acquisition of water.
- Initiate additional NEPA analysis for any projects that exceed the scope of the PEA.

Consultation and Coordination

Public Involvement. Reclamation has coordinated with federal, state, and local agencies during the preparation of the PEA to gather input, provide information, and to meet NEPA and ESA regulatory requirements. This coordination was integrated with the public involvement process. Reclamation held a scoping meeting to familiarize the communities with the proposed program and to solicit input on concerns and possible actions and impacts. Reclamation mailed 146 copies of the draft PEA to 72 organizations to solicit public comment on the proposed action and associated impacts. In addition, Reclamation met with local, state, and federal agency staff to discuss the project.

National Marine Fisheries Service and U.S. Fish and Wildlife Service Coordination. Coordination on fish and wildlife issues to meet the requirements of the Fish and Wildlife Coordination Act (FWCA) and the ESA was accomplished by informal consultation with the USFWS and NMFS.

Continued coordination with NMFS and USFWS will be needed to resolve ESA issues regarding listed salmon, steelhead, and bull trout. Based on discussions with NMFS and USFWS concerning the types of flow, screen, and barrier projects to be implemented, Reclamation concluded that a "may affect, but unlikely to adversely affect" determination is anticipated for most projects. Consequently, Reclamation will develop a programmatic BA for implementation of Action 149 in Oregon and will continue to consult with NMFS and USFWS. The programmatic BA is intended to provide a basis to obtain concurrence from NMFS and USFWS on the types of projects expected to be implemented that would not require additional consultation and identify the types that would. A mitigation strategy will be developed with NMFS and USFWS for each type of project. For some types of projects no additional consultation will be required beyond any terms and conditions specified in the BiOp developed in response to the programmatic BA; other types of projects will require individual consultation and could include preparation of a site-specific BA with an associated BiOp that could include site-specific terms and conditions.

National Historic Preservation Act. As specific projects are identified, Reclamation would determine if a project has the potential to impact historic properties. If that potential is determined to exist (i.e., if the project is an undertaking under the National Historic Preservation Act), then all consultation and coordination activities required by Section 106, 36 CFR 800 would be implemented. This might include consultation with the State Historic Preservation Office and interested Indian tribes on resource significance, and treatment of adverse impacts. Consultations and impact mitigation actions would be documented in a memorandum of agreement signed by consulting parties.

Sacred Sites and Indian Trust Assets. On a programmatic level, Reclamation meets regularly with various interested parties to provide updates on implementation of its responsibilities under the FCRPS BiOp. Among these parties is the Columbia River Inter-Tribal Fish Commission, which represents the four lower Columbia River tribes – Nez Perce, Umatilla, Warm Springs, and Yakama – that signed treaties with the United States in 1855. These programmatic meetings would continue to be held throughout the duration of the habitat improvement program.

Specific to the John Day Basin, cooperation and collaboration with the on-going habitat restoration programs of the Warm Springs and Umatilla Tribes would be critical to program accomplishment. Reclamation has supported the Warm Springs' habitat restoration office since it was established in the John Day Basin in the mid-1990's and has initiated discussions with the Umatilla tribal staff to determine how best to coordinate program activities. Reclamation would continue to work with these tribes to collaborate on habitat restoration projects.

As specific projects are identified, Reclamation would consult as necessary with tribes to determine whether traditional cultural properties (TCPs) or sacred sites may be impacted. If National Register-eligible TCPs are present, appropriate mitigation measures would be determined through these consultations. Reclamation would seek to avoid sacred sites. If human remains are inadvertently discovered during construction, work in the immediate vicinity of the discovery would cease, except to secure and protect the remains. Reclamation would contact tribes as required to determine appropriate procedures for consultation and treatment of the human remains. Reclamation would also carry out any other applicable measures of the state of Oregon burial laws.

Public Comment Summary/Changes in the Final PEA

The public comment period for the draft PEA extended from December 12, 2002, through January 24, 2003. One hundred forty-six copies of the draft PEA were sent to a mailing list of 72 organizations, agencies, and individuals. Four comment letters were received: North Fork Watershed Council, NOAA Fisheries, John Morris (private individual), and the Oregon Department of Fish and Wildlife's John Day Screen Shop.

The North Fork Watershed Council letter recommended that Reclamation consider flow augmentation measures that are outside the scope of Reclamation's responsibilities under BiOp Action 149. The PEA was not changed in response to this comment.

The letter from NOAA Fisheries suggested enhancements that would allow the final PEA to be used as a biological assessment (BA) to meet the requirements of a subsequent Section 7 consultation. Although Reclamation does not intend to use the PEA as a BA, the NOAA Fisheries comments were considered and extra detail regarding pushup dam replacements was added to the PEA as a result.

The John Morris letter suggested that past and current habitat improvement activities in the project subbasins be highlighted and that the existing environment be portrayed in a more positive light. This individual also asked questions about the details of some proposed activities. In addition, Morris suggested that the PEA address flow augmentation opportunities that are outside the scope of Reclamation's responsibilities under BiOp Action 149. General characterizations of current conditions were updated and more detail was added to the description of proposed activities as a result of this comment.

The letter from the Oregon Department of Fish and Wildlife pointed out minor errors of factual information and requested that an additional fish screening technique – siphons – be added to the PEA. All noted errors were corrected. In addition, a section on the use of siphons to prevent fish from inadvertently swimming up irrigation ditches was added.

Environmental Impact Findings

Potential impacts to natural, cultural, and social resources from the proposed action are summarized below, based on the full analysis presented in the PEA. Implementation of Action 149 is expected to result in overall, long-term benefits to ESA-listed and other anadromous and resident fish. Any negative impacts would be minimized by the adherence to mitigation measures noted in the PEA.

Hydrology and Water Quality. The replacement of pushup dams with lay-flat stanchion dams and other channel structures may cause local, short-term decreases in water quality. However, these impacts would be less than those associated with annual pushup dam maintenance. Water quality should improve in the long-term. Hydrology would be only minimally affected by pushup dam replacement. Construction of pump stations would occur outside the river channel and not affect water quality or hydrology.

Building and upgrading fish screens at diversion ditches and pump intakes would generally not affect hydrology or water quality.

Transfer of water rights to in-stream flows, and other means of increasing flows, would increase streamflows in the long-term as water rights for in-stream use accumulate.

Water quality may be decreased in the short-term as water diversion structures are removed. However, in the long-term, water quality would generally increase as relatively-high water temperatures and pollutants are diluted and dissolved oxygen is increased by the increased streamflows.

Vegetation. The proposed action is not expected to change most vegetation from its existing condition. However, riparian vegetation could be negatively impacted in the short-term by the replacement of pushup dams and other in-stream activities. A local and typically small acreage of upland vegetation plant communities would be excavated during the installation of lay-flat stanchion dams and infiltration galleries. This ground disturbance would be direct but short-term, and could hasten the introduction or spread of noxious weeds.

Flood Plains and Wetlands. A local and typically small amount of certain wetlands types could be excavated at each site during in-stream or streambank installation of lay-flat stanchion dams and infiltration galleries. Other proposed action activities are not expected to measurably impact floodplains or wetlands.

Fish. The replacement of pushup dams with lay-flat stanchion dams and other channel structures would cause negative short-term impacts to fish in the immediate vicinity of the in-channel construction activity. These impacts would be less than those from re-construction of a pushup dam. In the long-term, fish habitat and fish passage for adult and juvenile salmonids would be improved. Construction of pump stations would not affect fish in the short-term, but would improve fish habitat in the long-term by preventing pushup dam effects.

The installation or upgrading of fish screens would have minor to mostly non-existent impacts to fish in the short-term. In the long-term, fish would benefit from higher survival rates at encounters with fish screens. The installation of siphons would allow fish access to more habitat than without siphons.

Activities to increase streamflows would cause no short-term negative impacts to fish. In the long-term, habitat quality would improve locally and for substantial distances downstream.

Wildlife. In-stream construction activities to install lay-flat stanchion dams and other channel structures would cause short-term animal disturbance, especially if conducted during the breeding period. Long-term, the beneficial improvement of habitat from fewer pushup dams and less water diversion maintenance would offset this disturbance. Since construction would occur at dispersed sites over a large area and several years, the impact to wildlife would not be significant.

Threatened and Endangered Species. The impacts to threatened and endangered fish – steelhead and bull trout – are the same as noted above for fish. Overall, the long-term and cumulative positive impacts to steelhead and bull trout habitat and survival

greatly outweigh the short-term negative impacts, especially when mitigation is considered.

Construction activities could disrupt nearby nesting bald eagles during courtship, incubation, and rearing. However, the impacts to bald eagles would be insignificant if the proposed mitigation is adopted.

Essential Fish Habitat for Chinook Salmon. The intent of the proposed action is to have a long-term, positive impact on steelhead and other native fish, including chinook salmon and their habitat. However, some of the techniques employed to achieve the positive impacts may cause short-term and local negative impacts. Overall, the proposed action's long-term and cumulative positive impacts to essential fish habitat greatly outweigh the short-term negative impacts, especially when mitigation is considered.

Recreation. Overall impacts to recreation would be positive. In particular, recreational fishing and boating would benefit from increased fish populations and augmented streamflows.

Land Use. The rural character of the study area would not be expected to change. Legal protections given to federal Wild and Scenic Rivers and to State Scenic Waterways would remain unchanged.

Socioeconomics. The proposed action would benefit socioeconomics, as increased fishing and boating opportunities would expand the contribution of recreation and tourism to the economy of the project area. Water acquisitions could result in agricultural land being taken out of production, resulting in a negative impact to the local economy. However, landowner involvement in the proposed action habitat improvement projects is totally voluntary, helping assure negative impacts to individuals are avoided.

Indian Trust Assets. The proposed action is intended to improve in-stream habitat for anadromous fish species. This objective indirectly benefits treaty rights by increasing fish survival for tribal members and others in American society. Coordination of activities with tribal restoration efforts would ensure that Indian Trust Assets are protected, maintained, and restored.

Historic Properties. Any proposed action construction activity that would disturb soil, such as replacement of a fish screen, has the potential to damage or destroy historic properties within the disturbance area. However, specific construction impacts cannot be ascertained until specific project locations are identified. Acquisition of water for streamflow is unlikely to trigger impacts to historic properties.

Paleontological Resources. Any proposed action construction activity that would disturb soil, such as replacement of a fish screen, has the potential to damage or destroy historic properties within the disturbance area. However, specific construction impacts

cannot be ascertained until specific project locations are identified. Acquisition of water for streamflow is unlikely to trigger impacts to paleontological resources.

Indian Sacred Sites. Indian sacred sites as defined by Executive Order 13007 would likely not be impacted by the proposed action. The proposed action is limited to private lands, which is outside the scope of Executive Order 13007.

Environmental Justice. The proposed action is not expected to impact communities in any disproportionate way toward minority or low-income populations. An expected increase in anadromous fish survival would benefit all citizens, including Indian Tribes whose culture is historically tied to fish for subsistence.

Conclusion

Implementing the proposed action is expected to provide long-term benefits to ESA-listed and other anadromous and resident fish and would meet Reclamation's requirement under Action 149 of the NMFS 2000 FCRPS BiOp. Therefore, based on the analysis of the environmental consequences in the PEA, and consultation with potentially-affected tribes, agencies, organizations, and the general public, Reclamation concludes that implementing the proposed action, with the environmental commitments described in the PEA, would not have a significant impact on the quality of the human environment or the natural and cultural resources in the project area.

This **Finding of No Significant Impact** has therefore been prepared and is submitted to document environmental review and evaluation in compliance with the National Environmental Policy Act of 1969.

Recommended:

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May 1, 2003
Date

Approved:

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May 2, 2003
Date